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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,323

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Peter Bauer

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EXAMINER

MCMILLAN, JESSICA L

ART UNIT

PAPER NUMBER

2875

MAIL DATE

DELIVERY MODE

11/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/567,323

Applicant(s)

BAUER ET AL.

Examiner

Jessica L. McMillan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-25 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-19, 24, 25 and 27-32 is/are rejected.
- 7) ☒ Claim(s) 20-23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

Claims 16, 17, 18, 24, 25, 27-30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ter-Hovhannisian (US 7,121,675 B2)** in view of **Avenwedde et al. (US 7,107,779 B2)** and **Chen (US 2003/0042852 A1)**.

Regarding **claims 16, 27 and 30**, Ter-Hovhannisian discloses a refrigerating appliance (figure 1), such as a refrigerator or freezer, comprising: an interior space (see figure 1, where shelves (12) are located) and an internal lighting system (20) located in said interior space. Ter-Hovhannisian discloses light emitting diodes (22) but is silent about organic light emitting diodes. Avenwedde et al. disclose a refrigerating appliance uses organic light emitting diodes (24) as a light source. OLED light sources are not affected by low temperatures and thus make OLEDs ideal for cold environments such as freezers. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the LEDs of Ter-Hovhannisian with the OLEDs of Avenwedde et al. because of the OLEDs tolerance for cold temperatures.

Avenwedde et al. does not disclose that the OLED includes a substrate having an electrode, at least one layer of organic material and a counter-electrode where the substrate is formed as a transparent plate. Chen discloses an OLED (100) comprising a substrate (110) formed of as a transparent plate (see paragraph [0005]; substrate made

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of glass) having applied thereto an electrode (120), a counter electrode (16; see paragraph [0005]), a layer of organic material (130, 140 and 150). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the OLED of Avenweede et al. include a transparent substrate, electrode, counter electrode and an organic material as taught by Chen in order to achieve a desired illumination from the lighting system of the refrigerating appliance.

Regarding **claims 17 and 18**, Ter-Hovhannisian, Avenwedde et al. and Chen disclose the refrigerating appliance according to claim 16, and Ter-Hovhannisian discloses LEDs on an inner wall of an interior space (see figure 1; 20). Avenwedde et al. discloses OLEDs (24) in a refrigerating appliance but are silent about the composition of the OLEDs. Chen discloses OLEDs having a substrate with an electrode, counter-electrode and organic material. Exchanging the LEDs of Ter-Hovhannisian with the OLEDs Chen would yield that which is claimed.

Regarding **claim 24**, Ter-Hovhannisian further discloses a housing (10) joined together from a plurality of housing panels forming inner walls of an interior space.

Regarding **claim 25, 28 and 29**, Ter-Hovhannisian and Avenwedde et al. disclose the refrigerating appliance according to claim 24, Ter-Hovhannisian further discloses LEDs (20) on a housing panel. Avenwedde et al. discloses OLEDs (24) in a refrigerating appliance but are silent about the composition of the OLEDs. Chen discloses OLEDs having a substrate with an electrode, counter-electrode and organic material. Combining the OLEDs of Chen with the refrigerating appliance of Ter-

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Hovhannisian would have been obvious to one having ordinary skill in the art at the time the invention was made in order to provide reliable illumination to the appliance.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ter-Hovhannisian (US 7,121,675 B2)**, **Avenwedde et al. (US 7,107,779 B2)**, **Chen (US 2003/0042852 A1)** as applied to claim 16 above, and further in view of **Lange et al. (US 6,478,445 B1)**.

Regarding **claim 19**, Ter-Hovhannisian, Avenwedde et al. and Chen disclose the refrigerating appliance according to claim 16, and Ter-Hovhannisian further disclose a housing (10) surrounding an interior space but are silent about a cavity filled with an insulating material. Lange et al. disclose a refrigeration appliance with a space between case 106 and liners 108 and 110 and foam-in-place insulation between liners 108 and 110. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include insulation in the refrigeration appliance of Ter-Hovhannisian in order to help the appliance to maintain a certain level of coolness to keep the items inside cold and fresh.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ter-Hovhannisian (US 7,121,675 B2)**, **Avenwedde et al. (US 7,107,779 B2)** and **Chen (US 2003/0042852 A1)** as applied to claim 16 above, and further in view of **Caldwell (US 2003/0122455 A1)**.

Regarding **claim 31**, Ter-Hovhannisian and Avenwedde et al. disclose the refrigerating appliance according to claim 16, but are silent about a display and control panel. Caldwell discloses a control and display panel (see figure 3A) in a refrigeration

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appliance (figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a control and display panel in the refrigerating appliance in order to see and adjust settings of the appliance.

Regarding **claim 32**, Ter-Hovhannisian, Avenwedde et al. and Caldwell disclose the refrigerating appliance according to claim 16, and Caldwell further disclose a display panel for displaying symbols, said symbols formed by organic light-emitting diodes (see paragraph 0029)).

Allowable Subject Matter

Claims 20-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: prior art of record taken alone or in combination, fails to disclose or render obvious, a refrigerating appliance with an OLED integrated in a wall of a built in component (claims 20 and 22), an OLED including a luminous area filling between 20% and 50% of an inner wall of an interior space (claims 21 and 23), in combination with the rest of the limitations of the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. McMillan whose telephone number is (571) 272-5510. The examiner can normally be reached on 8:00 a.m. - 5:00 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLM
October 30, 2007



Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800